

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	85	((conjugate bicomponent) near fiber) and (high near speed near (spun spinning)) and crimp \$3	US-PGPUB; USPAT	OR	ON	2009/02/19 15:33
S2	44	S1 and ((no near draw \$3) undrawn)	US-PGPUB; USPAT	OR	ON	2009/02/19 15:36
S3	12	S1 and (no near draw \$3)	US-PGPUB; USPAT	OR	ON	2009/02/19 15:36
S4	7	S3 and (heat same (expand expansion length lengthen))	US-PGPUB; USPAT	OR	ON	2009/02/19 15:41
S5	117	((conjugate bicomponent) near fiber) and (high near speed near (spun spinning))	US-PGPUB; USPAT	OR	ON	2009/02/19 15:47
S6	68	S5 and (heat near (treat treatment))	US-PGPUB; USPAT	OR	ON	2009/02/19 15:48
S7	65	S6 and ((expand expansion length lengthen longer) same fiber)	US-PGPUB; USPAT	OR	ON	2009/02/19 15:49
S8	21	S6 and ((expand expansion length lengthen longer) near (fiber near length))	US-PGPUB; USPAT	OR	ON	2009/02/19 15:49
S9	645	((conjugate bicomponent) near fiber) and ((expand expansion length lengthen longer) same fiber) and (heat near treatment)	US-PGPUB; USPAT	OR	ON	2009/02/19 15:58
S10	390	((conjugate bicomponent) near fiber) and ((expand expansion length lengthen longer) near fiber) and (heat near treatment)	US-PGPUB; USPAT	OR	ON	2009/02/19 15:58

S11	49	((conjugate bicomponent) near fiber) and ((expand expansion lengthen longer) near fiber) and (heat near treatment)	US-PGPUB; USPAT	OR	ON	2009/02/19 15:59
S12	7	(heat near treatment) same ((expand near fiber)	US-PGPUB; USPAT	OR	ON	2009/02/19 16:00
S13	7	(heat near treatment) same ((expand lengthen) near fiber)	US-PGPUB; USPAT	OR	ON	2009/02/19 16:01
S14	741	((expand lengthen) near fiber)	US-PGPUB; USPAT	OR	ON	2009/02/19 16:02
S15	6150	(conjugate bicomponent) near fiber	US-PGPUB; USPAT	OR	ON	2009/02/19 16:02
S16	4164	(high near speed near (spun spin spinning))	US-PGPUB; USPAT	OR	ON	2009/02/19 16:03
S17	20	S14 and S15	US-PGPUB; USPAT	OR	ON	2009/02/19 16:03
S18	3	negative near heat near shrinkage	US-PGPUB; USPAT	OR	ON	2009/02/19 16:04
S19	244	fiber adj expansion	US-PGPUB; USPAT	OR	ON	2009/02/19 16:05
S20	2	S19 and (conjugate bicomponent) and heat	US-PGPUB; USPAT	OR	ON	2009/02/19 16:05
S21	6	S19 and (conjugate bicomponent)	US-PGPUB; USPAT	OR	ON	2009/02/19 16:05
S22	768	((conjugate bicomponent) near fiber) and (heat adj treatment)	US-PGPUB; USPAT	OR	ON	2009/02/19 16:06
S23	200	S22 and (high near speed) and melt and (spin spinning spun)	US-PGPUB; USPAT	OR	ON	2009/02/19 16:07
S24	182	S23 and (shrink shrinkage expand expansion crimp lengthen longer)	US-PGPUB; USPAT	OR	ON	2009/02/19 16:08
S25	156	S23 and (expand expansion crimp lengthen longer)	US-PGPUB; USPAT	OR	ON	2009/02/19 16:08
S26	79	S23 and (expand expansion lengthen longer)	US-PGPUB; USPAT	OR	ON	2009/02/19 16:08

S27	4	bulky and ((conjugate bicomponent) near fiber) and (high near speed near melt near (spin spinning))	US-PGPUB; USPAT	OR	ON	2009/02/19 16:29
S28	192	S23 and (expand expansion increas\$3 lengthen longer)	US-PGPUB; USPAT	OR	ON	2009/02/19 16:31
S29	1	("4269888").PN.	US-PGPUB; USPAT	OR	ON	2009/02/19 16:32
S30	149	((high adj speed) near (melt near (spin spinning spun))) and fiber	US-PGPUB; USPAT	OR	ON	2009/02/19 16:33
S31	6150	(conjugate bicomponent) near fiber	US-PGPUB; USPAT	OR	ON	2009/02/19 16:34
S32	47554	(heat adj treat\$4) and fiber	US-PGPUB; USPAT	OR	ON	2009/02/19 16:34
S33	163	(no adj draw) and fiber	US-PGPUB; USPAT	OR	ON	2009/02/19 16:35
S34	497	(no adj (drawing draw)) and fiber	US-PGPUB; USPAT	OR	ON	2009/02/19 16:35
S35	26	S30 and S31	US-PGPUB; USPAT	OR	ON	2009/02/19 16:35
S36	64	S30 and S32	US-PGPUB; USPAT	OR	ON	2009/02/19 16:36
S37	3	S30 and S33	US-PGPUB; USPAT	OR	ON	2009/02/19 16:36
S38	13	S31 and S33	US-PGPUB; USPAT	OR	ON	2009/02/19 16:37
S39	3842	((expand expansion increas\$3 length\$3 longer) near fiber) same heat	US-PGPUB; USPAT	OR	ON	2009/02/19 16:39
S40	312	S39 and S31	US-PGPUB; USPAT	OR	ON	2009/02/19 16:39
S41	4	S40 and S30	US-PGPUB; USPAT	OR	ON	2009/02/19 16:40
S42	10981	(melt near (spin spinning spun)) and fiber	US-PGPUB; USPAT	OR	ON	2009/02/19 16:43
S43	118	S40 and S42	US-PGPUB; USPAT	OR	ON	2009/02/19 16:43
S44	1	"3671379".pn.	US-PGPUB; USPAT	OR	ON	2009/02/19 16:44

S45	78	("3671379").URPN.	USPAT	OR	ON	2009/02/19 17:07
S46	28	S45 and (high near speed)	USPAT	OR	ON	2009/02/19 17:09
S47	55	S45 and (conjugate bicomponent)	USPAT	OR	ON	2009/02/19 17:10
S48	4	S45 and (no near draw\$3)	USPAT	OR	ON	2009/02/19 17:10
S49	6	(polypropylene near fiber) and (orientation adj index)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/19 17:29
S50	21	(polypropylene and fiber) and (orientation adj index)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/19 17:31
S51	4837	S31 and polypropylene and polyethylene	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/19 17:33
S52	3	S51 and ((orientation near index) birefringement)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/19 17:33
S53	3	S51 and (orientation near index)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/19 17:34
S54	1309	S51 and ((orientation near index) crystallinity crystalline birefringence)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/19 17:36
S55	57	S51 and ((orientation near index) birefringence)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/19 17:37
S56	21	S55 and (heat adj treat\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/19 17:40
S57	98	"2931091"	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 08:39
S58	0	"2931091.pn."	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 08:39
S59	0	"2931091.pn."	USOCR	OR	ON	2009/02/20 08:40
S60	58	"2931091"	USOCR	OR	ON	2009/02/20 08:44
S61	49	264/172.11-172.17. ccls. and ((low no) near draw\$3)	USOCR	OR	ON	2009/02/20 09:36
S62	77	264/172.11-172.17. ccls. and ((low no) near draw\$3)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 09:36

S63	8	264/172.11-172.17. ccls. and ((low no) near draw\$3) and ((low no) near shrinkage)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 09:40
S64	39	264/172.11-172.17. ccls. and ((low no) near shrinkage)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 09:50
S65	20	264/172.17.ccls. and ((low no) near shrinkage)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 09:51
S66	173	264/172.17.ccls. and speed	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 09:51
S67	156	264/172.17.ccls. and speed and high	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 09:51
S68	45	264/172.17.ccls. and (high near speed)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 09:51
S69	819	442/361-364.ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 11:30
S70	605	S69 and polypropylene and polyethylene	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 11:31
S71	188	S69 and polypropylene and ((high adj density) near polyethylene)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 11:31
S72	745	S69 and (melt\$4 (melt adj (spin spinning)))	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 11:32
S73	138	S72 and (high adj speed)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 11:33
S74	44	S69 and ((no low) near (draw ratio tension))	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 11:33
S75	194	S69 and (heat near (treat treatment crimp))	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 11:34
S76	19	S74 and S75	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 11:34
S77	11	S76 and S71	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 11:34
S78	5	S77 and S73	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 11:52
S79	54	S71 and (orientation birefringence)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 12:50
S80	54	S79 and S72	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 12:50

S81	11	S79 and S73	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 12:51
S82	1	S71 and ((orientation birefringence) near index)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 12:52
S83	2	S71 and (birefringence)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 12:52
S84	835	polypropylene and ((high adj density) near polyethylene) and ((conjugate bicomponent) near fiber)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 12:57
S85	9	S84 and birefringence	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 12:58
S86	4853	polypropylene and polyethylene and ((conjugate bicomponent) near fiber)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 12:59
S87	56	S86 and birefringence	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 12:59
S88	34	S87 and sheath and core	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 13:36
S89	1	S88 and (sheath near polyethylene) and (core near polypropylene)	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 13:37
S90	59	((MANABU) near2 (MATSUI)).INV.	EPO; JPO; DERWENT	OR	ON	2009/02/20 13:43
S91	13	((TAKESHI) near2 (KIKUTANI)).INV.	EPO; JPO; DERWENT	OR	ON	2009/02/20 13:45
S92	9	((MANABU) near2 (MATSUI)).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2009/02/20 13:47
S93	4	("5800230").URPN.	USPAT	OR	ON	2009/02/24 16:15
S94	1	"5780155".pn.	US-PGPUB; USPAT	OR	ON	2009/02/24 18:19

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